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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WINGA HO

Appeal 2008-0050
Application 09/587,721
Technology Center 2100

Decided: September 8, 2008

Before JAMES D. THOMAS, LANCE LEONARD BARRY,
and JEAN R. HOMERE, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF THE CASE

A Patent Examiner rejected claims 1-20. The Appellant appeals therefrom under 35 U.S.C. § 134(a). We have jurisdiction under 35 U.S.C. § 6(b).

A. INVENTION

The invention at issue on appeal maintains synchronization between sending and receiving digital systems communicating over a lossy transmission media. (Spec. 1.)

B. ILLUSTRATIVE CLAIM

Claim 1, which further illustrates the invention, follows.

1. A method for transmitting encoded data between synchronized sending and receiving digital systems across a lossy transmission media, said sending and receiving digital systems maintaining respective encoder and decoder information records, said method comprising the steps of:

- encoding packet data to be transmitted by said sending digital system using encoding information in an encoder information record that has been previously acknowledged by said receiving digital system;

- building a new encoder information record including the encoding information used to encode said packet data as well as the packet data;

- transmitting the encoded packet data to said receiving digital system as a packet including a header having a packet number and a tag identifying the encoding information used to encode the packet data;

- when the packet is received by said receiving digital system, examining the header to determine the encoding information used to encode said packet data;

- decoding the packet using corresponding decoder information in said decoder information record and updating

the decoder information in said decoder information record with said packet data;

acknowledging processing of the packet to said sending digital system to enable said sending digital system to update said encoder information so that said new encoder information record is used to encode future packet data to be transmitted;
and

when the packet is lost, at the sending digital system rebuilding the new encoder information record without the lost packet data.

C. REJECTION

Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as obvious over PCT Patent Application Pub. No. WO 95/14971 ("Desnoyers") and European Patent Application Pub. No. EP 0 851 624 A2 ("Uoto").

II. ISSUE

"Rather than reiterate the positions of the parties *in toto*, we focus on an issue therebetween." *Ex parte Kuruoglu*, No. 2007-0666, 2007 WL 2745820, at *2 (BPAI 2007). The Examiner admits that "Desnoyers fails to explicitly teach . . . building a new encoder information record including the encoding information used to encode said packet data as well as the packet data" (Substitute Ans. 5.) He finds, however, that "the data frame transmission disclosed by Uota in figures 3-5 is equivalent to an encoded data packet." (*Id.* 10.) He further finds that "[t]he backward information field includes history information of received frame in the form of an 8-bit string (see page 6 last paragraph of Appeal Brief and figures 3-5 of Uota reference)" (*id.*), and that "[s]ince Uota's data frame includes history information, it is interpreted as an information record used to encode packet

data as specified in the claimed invention." (*Id.*) The Appellant makes the following argument.

Referring to the Uota reference, the only information record that is updated is a history of correctly received frame-numbers (wherein a single bit is set in a backward information field of a frame to be transmitted to a transmitting terminal). This is not equivalent to building or rebuilding a new encoder information record including the encoding information used to encode said packet data as well as the packet data.

(3d Reply Br. 1-2.) Therefore, the issue is whether the Appellant has shown error in the Examiner's finding that Uota's backward information field constitutes a new encoder information record including the encoding information used to encode associated packet data as well as the packet data.

III. AUTHORITY

"In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness." *In re Rijckaert*, 9 F.3d 1531, 1532 (Fed. Cir. 1993) (citing *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992)).

IV. FINDINGS OF FACT ("FFs")

1. Uota's "Fig. 3 shows a structure of a frame used for a data transmission system" (Col. 4, ll. 7-8.)

2. Uota describes the parts of its frame as follows.

In Fig. 3, a flag sequence field 21 is used for setting a flag for delimiting a frame by using a specified bit pattern. A forward information field 22 includes a frame-number for identifying each frame that is a sequential number set by a

transmitting terminal before transmitting data. A backward information field 23 includes history information of received frames, wherein a history of the frames correctly received at the receiving terminal is set. In this embodiment, a string of 8 bits corresponding to respective frames is used as the history information of the frame-numbers. An information field 24 is used for setting user's data that is previously divided into fixed-length units. An [sic] code for error-detection field 25 is used for setting therein a code for error-detection by which transmission error in the received frame is checked at a receiving terminal. A code for error-detection for cyclic redundancy check (CRC) or the like may be set in this field.

(Col. 6, ll. 1-19.)

3. The reference includes the following explanation about the use of the field.

At one terminal receiving frames from the other terminal to be communicated, an error check is made on each of the frames by using code for error-detection. For each correctly received frame, a corresponding frame-numbering bit in a bit string is inverted and set in a backward information field 23 of a frame to be transmitted in return to the other terminal to be communicated. In practice, a frame set first with "00000000" in its backward information field 23 is changed, when correctly receiving a frame N(S)=0 from the other terminal to be communicated, to be set next with "00000001" in a backward information field 23 of a frame to be transmitted. Then, the frame set in its backward information field 23 is changed, when correctly receiving a subsequent frame N(S)=1 from the other terminal to be communicated, to be set with a bit string "00000011".

(*Id.* ll. 33-48.)

V. ANALYSIS

We agree with the Examiner that Uota's data frame is equivalent to an encoded data packet but disagree that the frame's backward information field 23 constitutes a new encoder information record. Because the field is part of the data frame, it does not constitute the claimed encoder information record, which is a data structure separate and different from the claimed packet data. Furthermore, the backward information field merely contains the number of frames that have been received from another terminal; it contains neither the other fields 21, 22, 24, 25 of the data frame, which are used to encode the frame, nor "the packet data" as claimed.

VI. CONCLUSION

The Appellant has shown error in the Examiner's finding that Uota's backward information field constitutes a new encoder information record including the encoding information used to encode associated packet data as well as the packet data. Absent a teaching or suggestion of a new encoder information record including the encoding information used to encode associated packet data as well as the packet data, we are unpersuaded of a prima facie case of obviousness.

VII. ORDER

For the aforementioned reasons, we reverse the rejection of claims 1-20 under § 103(a).

REVERSED

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BEYER WEAVER LLP
P.O. BOX 70250
OAKLAND CA 94612-0250